

ABSTRACT

A network communications protocol program includes an active protocol stack and an inactive protocol stack, wherein a component from the inactive stack may be called into the active stack when a particular data communications type is detected. The component may be deactivated when the particular data communications type is finished. The program preferably includes socket layer, channel layer and message handling layer components for permitting and extracting communications over a network. The socket layer component receives data from a sender over a network, and defragments and reassembles the data for multiplexing and distributing data portions into multiple channels according to the data formats the data portions resemble. The channel layer component includes channels arranged according to the multiple data formats. The channel layer receives the data portions processed by the socket layer and multiplexes and distributes new data portions according to which of multiple APIs the data is directed to. The message handler component includes the APIs and receives and handles the data processed by the channel and socket layers according to user-defined responsibilities each of the APIs is configured to perform. The program is also configured for sending data over the network to multiple recipients.

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